

IN THE CLAIMS:

1. (Original) A method of screening for susceptibility to sub-optimal norepinephrine (NE) transport in a subject, the method comprising:

- (a) obtaining a biological sample from the subject; and
- (b) detecting a polymorphism of a NE transporter gene in a biological sample from the subject, the presence of the polymorphism indicating the susceptibility of the subject to sub-optimal norepinephrine transport.

2. (Original) The method of claim 1, wherein the susceptibility of the subject to sub-optimal NE transport is further characterized as susceptibility to orthostatic intolerance.

3. (Original) The method of claim 1, wherein the biological sample comprises a nucleic acid sample.

4. (Currently Amended) ~~The method of claim 3,~~ A method of screening for susceptibility to sub-optimal norepinephrine (NE) transport in a subject, the method comprising:

- (a) obtaining a biological sample from the subject, wherein the biological sample comprises a nucleic acid sample; and
- (b) detecting a polymorphism of a NE transporter gene in the biological sample from the subject, wherein the polymorphism of the NE transporter polypeptide gene comprises a G to C transversion within NE transporter exon 9, the presence of the polymorphism indicating the susceptibility of the subject to sub-optimal norepinephrine transport.

5. (Currently Amended) ~~The method of claim 4, wherein the G to C transversion within exon 9 of the NE transporter gene~~ A method of screening for susceptibility to sub-optimal norepinephrine (NE) transport in a subject, the method comprising:

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- (a) obtaining a biological sample from the subject, wherein the biological sample comprises a nucleic acid sample; and
- (b) detecting a polymorphism of a NE transporter gene in the biological sample from the subject, wherein the polymorphism of the NE transporter gene comprises a G to C transversion within NE transporter exon 9 and encodes a NE transporter polypeptide having a proline moiety at amino acid 457, the presence of the polymorphism indicating the susceptibility of the subject to sub-optimal norepinephrine transport.

6. (Original) The method of claim 3, wherein the polymorphism is detected by amplifying a target nucleic acid in the nucleic acid sample from the subject using an amplification technique.

7. (Original) The method of claim 6, wherein the polymorphism is detected by amplifying a target nucleic acid in the nucleic acid sample from the subject using an oligonucleotide pair, wherein a first oligonucleotide of the pair hybridizes to a first portion of the NE transporter gene, wherein the first portion includes the polymorphism of the NE transporter gene, and wherein the second of the oligonucleotide pair hybridizes to a second portion of the NE transporter gene that is adjacent to the first portion.

8. (Currently Amended) ~~The method of claim 7, wherein the~~ A method of screening for susceptibility to sub-optimal norepinephrine (NE) transport in a subject, the method comprising:

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- (a) obtaining a biological sample from the subject, wherein the biological sample comprises a nucleic acid sample; and
- (b) detecting a polymorphism of a NE transporter gene in the biological sample from the subject, wherein the polymorphism of the NE transporter gene is detected by amplifying a target nucleic acid in the nucleic acid sample from the subject using an oligonucleotide pair,

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wherein a first oligonucleotide of the pair hybridizes to a first portion of the NE transporter gene includes including exon 9 and the polymorphism of the NE transporter gene, and wherein the second oligonucleotide of the pair hybridizes to a second portion of the NE transporter gene that is adjacent to the first portion, the presence of the polymorphism indicating the susceptibility of the subject to sub-optimal norepinephrine transport.

9. (Original) The method of claim 7, wherein the first and the second oligonucleotides each further comprise a detectable label, and wherein the label of the first oligonucleotide is distinguishable from the label of the second oligonucleotide.

10. (Original) The method of claim 9, wherein said label of said first oligonucleotide is a radiolabel, and wherein said label of said second oligonucleotide is a biotin label.

11. (Original) The method of claim 3, wherein the polymorphism is detected by sequencing a target nucleic acid in the nucleic acid sample from the subject.

12. (Original) The method of claim 11, wherein the sequencing comprises dideoxy sequencing.

13. (Original) The method of claim 3, wherein the step of detecting the polymorphism is detected by contacting a target nucleic acid in the nucleic acid sample from the subject with a reagent that detects the presence of the NE transporter polymorphism and detecting the reagent.

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14. (Currently Amended) ~~The method of claim 13;~~ A method of screening for susceptibility to sub-optimal norepinephrine (NE) transport in a subject, the method comprising:

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- (a) obtaining a biological sample from the subject, wherein the biological sample comprises a nucleic acid sample; and
- (b) detecting a polymorphism of a NE transporter gene in the biological sample from the subject, wherein the polymorphism of the NE transporter gene is detected by contacting a target nucleic acid in the nucleic acid sample from the subject with a reagent that detects the presence of the NE transporter polymorphism and detecting the reagent, wherein the reagent detects a G to C transversion within NE transporter exon 9, the presence of the polymorphism indicating the susceptibility of the subject to sub-optimal norepinephrine transport.

15. (Currently Amended) ~~The method of claim 13,~~ A method of screening for susceptibility to sub-optimal norepinephrine (NE) transport in a subject, the method comprising:

- (a) obtaining a biological sample from the subject, wherein the biological sample comprises a nucleic acid sample; and
- (b) detecting a polymorphism of a NE transporter gene in the biological sample from the subject, wherein the polymorphism of the NE transporter gene is detected by contacting a target nucleic acid in the nucleic acid sample from the subject with a reagent that detects the presence of the NE transporter polymorphism and detecting the reagent, wherein the reagent is an oligonucleotide primer as set forth in SEQ ID NO:9 or SEQ ID NO:10, the presence of the polymorphism indicating the susceptibility of the subject to sub-optimal norepinephrine transport.

16. (Original) The method of claim 1, wherein the biological sample comprises a polypeptide sample.

17. (Original) The method of claims 1, 2 or 3, wherein the subject is a human subject.

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